



## Notice of Proposed Amendment 2014-21

# Update of CS ADR-DSN.D.260 Taxiway minimum separation distance

RMT.0591 — 3.9.2014

### EXECUTIVE SUMMARY

This NPA suggests the revision of Table D-1 of CS ADR-DSN.D.260 as adopted by ED Decision 2014/013/R dated 27 February 2014. It deals with substantial reductions of clearance requirements for taxiways and taxilanes as prepared by ICAO.

This revision is proposed to be performed in advance of the adoption of identical changes in the respective ICAO provisions, which are expected to be adopted in 2016. As the European airport industry, together with the respective competent authorities, currently perform a substantial certification process following Commission Regulation (EU) 139/2014, this certification process should take into account these envisaged changes in order to facilitate the process and to avoid unnecessary, potentially significant increase in effort. Therefore, the changes in the respective CS are proposed by the Agency to be adopted without delay.

Applicability		Process map	
Affected regulations and decisions:	Regulation (EU) No 139/2014 ED Decision 2014/013/R CS ADR-DSN - Initial issue	Concept Paper:	No
Affected stakeholders:	Aerodrome operators, Competent Authorities	Terms of Reference:	10.4.2014
Driver/origin:	Necessary amendments in response to developments of new Taxiway separation distances, Table 3-1 of Annex 14, Vol I – Aerodromes	Rulemaking group:	No
Reference:		RIA type:	None
		Technical consultation during NPA drafting:	No
		Duration of NPA consultation:	2 months
		Review group:	No
		Focused consultation:	Yes
		Publication date of the Opinion:	
		Publication date of the Decision:	2014/Q4



## Table of contents

1. Procedural information .....	3
1.1. The rule development procedure.....	3
1.2. How to comment on this NPA .....	3
1.3. The next steps in the procedure.....	3
2. Explanatory Note.....	4
2.1. Overview of the proposed update of CS ADR-DSN.D.260 .....	4
3. Proposed amendments .....	6
3.1. Draft Certification Specifications (Draft EASA Decision) .....	6
CS ADR-DSN.D.260 Taxiway minimum separation distance .....	6
CS ADR-DSN.G.400 Clearance distances on a de-icing/anti-icing pad .....	7
GM1 ADR-DSN.D.260 Taxiway minimum separation distance .....	7
4. Regulatory Impact Assessment (RIA) .....	9
5. References.....	10
5.1. Affected regulations .....	10
5.2. Affected CS and GM.....	10



## 1. Procedural information

### 1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this Notice of Proposed Amendment (NPA) in line with Regulation (EC) No 216/2008<sup>1</sup> (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure<sup>2</sup>.

This rulemaking activity is included in the Agency's Revised Rulemaking Programme 2014 – 2017 under RMT.0591 Maintaining aerodrome rules <http://easa.europa.eu/document-library/rulemaking-programmes/revised-2014-2017-rulemaking-programme>.

The text of this NPA has been developed by the Agency, based on the input and developments of the ICAO Aerodrome Design Working Group (ADWG). It is hereby submitted for consultation of all interested parties<sup>3</sup>.

### 1.2. How to comment on this NPA

Please submit your comments using the automated **Comment-Response Tool (CRT)** available at <http://hub.easa.europa.eu/crt/><sup>4</sup>.

The deadline for submission of comments is **3 November 2014**.

### 1.3. The next steps in the procedure

Following the closing of the NPA public consultation period, the Agency will review all comments and envisages to perform an additional focussed consultation which will consist of direct contact of the NAA and industry experts not involved in the consultations during the NPA preparation.

The outcome of the NPA public consultation as well as of the additional focussed consultation, if necessary, will be reflected in the respective Comment-Response Document (CRD).

The Agency will publish the CRD with the Decision.

The ED Decision, containing updated Certification Specification (CS) and, if applicable, Guidance Material (GM), will be adopted by the Executive Director of the Agency and published at the Agency's web page.

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<sup>1</sup> Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1), as last amended by Commission Regulation (EU) No 6/2013 of 8 January 2013 (OJ L 4, 9.1.2013, p. 34).

<sup>2</sup> The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of Opinions, Certification Specifications and Guidance Material (Rulemaking Procedure), EASA MB Decision No 01-2012 of 13 March 2012.

<sup>3</sup> In accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

<sup>4</sup> In case of technical problems, please contact the CRT webmaster ([crt@easa.europa.eu](mailto:crt@easa.europa.eu)).

## 2. Explanatory Note

This NPA suggests the revision of Table D-1 of CS ADR-DSN.D.260 as adopted by ED Decision 2014/013/R dated 27 February 2014. It deals with substantial reductions of clearance requirements for taxiways and aircraft stand taxilanes.

This revision is proposed to be performed in advance of the adoption of identical changes in the respective ICAO provisions, which are expected to be adopted in 2016. As the European airport industry, together with the respective competent authorities, currently perform a substantial certification process following Commission Regulation (EU) 139/2014, this certification process should take into account these envisaged changes in order to facilitate the process and to avoid unnecessary, potentially significant increase in effort. Therefore, the changes in the respective CS are proposed by the Agency to be adopted without delay.

### 2.1. Overview of the proposed update of CS ADR-DSN.D.260

The separation distance between the centre line of a taxiway and the centre line of a runway, the centre line of a parallel taxiway or an object are defined in CS ADR-DSN.D.260 and by Table D-1. The separation distances as defined by Table D-1 are based on and are identical to Table 3-1 'Taxiway minimum separation distances' of ICAO Annex 14, Vol I – Aerodromes, sixth edition, July 2013.

However, as part of the ICAO endeavour to review Annex 14, Volume I, Chapter 3, the ICAO Aerodrome Design Working Group (ADWG), which works underneath the ICAO Aerodrome Panel (AP), discussed intensely possibilities of reducing the separation distances over the last years. As a result, based on several scientific studies it was concluded by ADWG that the existing figures should be reduced<sup>5</sup> and, developed a new version of Table 3-1. This conclusion by ADWG was supported also by the Agency.

The table and its justification was endorsed by the last meeting of the ICAO Aerodrome Panel in April 2014 and reported to Air Navigation Commission (ANC). The ANC will review this report and prepare an ICAO State Letter. While it cannot be ruled out that the formal adoption process within ICAO could lead to further changes, it is expected that the table, after adoption by the ICAO Council, could become applicable earliest in November 2016.

In response to the entry into force of Commission Regulation (EU) 139/2014, affected airports in Europe are currently undergoing the certification process of their infrastructure. With the respective separation distances being a significant criterion for airport layout, capacity and costly to adjust, many

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<sup>5</sup> Different methods were used in analysing the possibilities of reducing the separation distances. Different deviation studies were performed at several airports in last almost 30 years, which had involved over 400,000 movements measured by aircraft across the code letters C-E. Similar studies had also been conducted by the US FAA for codes C and D aircraft from 2009 to 2012. The ADWG had assessed those studies in detail and concluded that for a given risk level of  $1e10^{-6}$ , the estimated centre line separation distances could be reduced by 10-15%.

A second methodology examined was the methodology adopted by the European Aerodrome Operations Planning Group (AOPG), formalized as ICAO Document 7754 to support entry into service of the B747-400. The proposed separation distances are based on the on a risk level of  $1e10^{-6}$ .

Another methodology was based on risk assessment. Using a risk-based assessment methodology it was concluded that decreased centre line separations could achieve a target level of safety (TLS) between  $1e10^{-7}$  and  $1e10^{-8}$ , which is equivalent to or better than the ICAO global risk factor.

deviations from the outdated ICAO requirements exist already today in order to accommodate modern aircraft and related operational needs.

In the visible advent of revised ICAO requirements, it is suggested to anticipate the revision of CS ADR-DSN.D.260 in line with the ADWG proposal as soon as possible. This would avoid unnecessary efforts such as derogations or cost of infrastructural adjustments along the imminent certification processes and also provide for an up to date platform for new, modern infrastructure to be built.

The proposed amendment of the Table D-1 consists of certain reductions of different separation distances on 'taxiways' and 'aircraft stand taxilanes', as well as of a new column for 'aircraft stand taxilane centre line to aircraft stand taxilane centre line' separation distances.

The column number (11) of Table D-1 and reductions of the distances are reflected also in CS ADR-DSN.T.915(b)(1), where the dimensions are properly corrected. Because of the new column number (12) which is added to the Table D-1, the previous column number (12) is changed to column number (13). This change is also reflected in CS ADR-DSN.G.400 and GM1 ADR-DSN.D.260 where the column number was changed from (12) to (13). The remaining text of CS-ADR-DSN is not affected by the proposed change.



### 3. Proposed amendments

The text of the amendment is arranged to show deleted text, new or amended text as shown below:

- (a) deleted text is marked with ~~strike through~~;
- (b) new or amended text is highlighted in grey;
- (c) an ellipsis (...) indicates that the remaining text is unchanged in front of or following the reflected amendment.

#### 3.1. Draft Certification Specifications (Draft EASA Decision)

Amend CS ADR-DSN.D.260 as follows:

##### CS ADR-DSN.D.260 Taxiway minimum separation distance

- (a) The safety objective of minimum taxi separation distances is to allow safe use of taxiways and aircraft stand taxilanes ~~taxi lanes~~ to prevent possible collision with other aeroplanes operating on adjacent runways or taxiways, or collision with adjacent objects.
- (b) The separation distance between the centre line of a taxiway and the centre line of a runway, the centre line of a parallel taxiway or an object should not be less than the appropriate dimension specified in Table D-1.

Code letter	Distance between taxiway centre line and runway centre line (metres)								Taxiway centre line to taxiway centre line (metres)	Taxiway, other than aircraft stand taxilane, centre line to object (metres)	Aircraft stand taxilane centre line to aircraft stand taxilane centre line (metres)	Aircraft stand taxilane centre line to object (metres)
	Instrument runways Code number				Non-instrument runways Code number							
	1	2	3	4	1	2	3	4				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13) <del>(12)</del>
A	82.5	82.5	—	—	37.5	47.5	—	—	23 <del>(23.75)</del>	15.5 <del>(16.25)</del>	19.5	12
B	87	87	—	—	42	52	—	—	32 <del>(33.5)</del>	20 <del>(21.5)</del>	28.5	16.5
C	—	—	168	—	—	—	93	—	44	26	40.5	22.5 <del>(24.5)</del>
D	—	—	176	176	—	—	101	101	63 <del>(66.5)</del>	37 <del>(40.5)</del>	59.5	33.5 <del>(36)</del>
E	—	—	—	182.5	—	—	—	107.5	76 <del>(80)</del>	43.5 <del>(47.5)</del>	72.5	40 <del>(42.5)</del>
F	—	—	—	190	—	—	—	115	91 <del>(97.5)</del>	51 <del>(57.5)</del>	87.5	47.5 <del>(50.5)</del>

	<p>Note 1.— The separation distances shown in columns (2) to (9) represent ordinary combinations of runways and taxiways.</p> <p>Note 2.— The distances in columns (2) to (9) do not guarantee sufficient clearance behind a holding aeroplane to permit the passing of another aeroplane on a parallel taxiway.</p>
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Table D-1. Taxiway minimum separation distances

Amend CS ADR-DSN.G.400(c) as follows:

**CS ADR-DSN.G.400 Clearance distances on a de-icing/anti-icing pad**

...

- (c) If the pad layout is such as to include bypass configuration, the minimum separation distances specified in Table D-1, column (13) ~~(12)~~ should be provided.

...

Amend GM1 ADR-DSN.D.260(d) as follows:

**GM1 ADR-DSN.D.260 Taxiway minimum separation distance**

...

- (d) The separation distance between the centre line of an aircraft stand taxilane and an object, as prescribed in Table D-1, column (13) ~~12~~, may need to be increased when jet exhaust wake velocity may cause hazardous conditions for ground servicing.

...

Amend CS ADR-DSN.T.915 (b)(1) as follows:

**CS ADR-DSN.T.915 Siting of equipment and installations on operational areas**

...

- (b) Unless its function requires it to be there for air navigation or for aircraft safety purposes, no equipment or installation endangering an aircraft should be located:
  - (1) on a runway strip, a runway end safety area, a taxiway strip, or within the following distances:

Code Letter	Distance between taxiway <del>(to — Taxiway)</del> , other than aircraft stand taxilane centre line to object (metres)
A	15.5 <del>(16.25)</del>
B	20 <del>(21.5)</del>
C	26
D	37 <del>(40.5)</del>
E	43.5 <del>(47.5)</del>

F	51 (57.5)
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if it would endanger an aircraft, or...





#### 4. Regulatory Impact Assessment (RIA)

This NPA does not create any new requirements for airports or competent authorities, but only proposes to adjust CS/GM material based on common certification practices agreed with applicant airports. Therefore, no RIA needs to be developed.



## 5. References

### 5.1. Affected regulations

Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 44, 14.02.2014, p. 1)

### 5.2. Affected CS and GM

Certification Specification CS ADR-DSN.D.260 Taxiway minimum separation distance and related Guidance Material (GM) for Aerodromes Design (CS-ADR-DSN), Initial Issue, adopted by the ED Decision 2014/013/R of 27 February 2014.

